

CLAIMS

1. An improved apparatus for cleaning articles in a fluid and oscillating medium, which comprises:
 - a frame;
 - 5 a container having a central axis perpendicular to an article inlet opening in the container and mounted to the frame so that the central axis of the container is non-perpendicular to a horizontal cross-section of the frame by means of a plurality of opposing parallel compression and tension springs having differing spring rates for enhanced oscillation of the container which holds the articles;
 - a means for injecting a cleaning fluid into the container for cleaning the articles in the container;
 - a means for oscillating the container within the frame;
 - 15 a means for draining excess debris and cleaning fluid from the articles in the container once oscillation begins; and
 - a means for filtering and recirculating the cleaning fluid from the solid debris back into the container, the filter means comprising a series of filters.
2. The oscillation means of claim 1 wherein at least one electric motor is attached to the container.
- 20 3. The apparatus of claim 1 wherein the frame comprises a plurality of integrally connected unitary components of square tubing for facilitating stability of the container, oscillating means, and draininage means.

4. The apparatus of claim 1 wherein the container is mounted to the frame by a plurality of opposing parallel compression and tension springs for oscillation of the container.
5. The apparatus of claim 1 wherein the injection means comprises:
 - an intake manifold; and
 - 5 a plurality of injection nozzles horizontally displaced on the intake manifold and over the container for injection of a cleaning fluid into the container to clean the articles contained therein.
6. The apparatus of claim 1 wherein the drainage means comprises:
 - an opening in the container;
 - 10 a reservoir below the opening and containing a plurality of ports;
 - a plurality of nozzles connected to the reservoir and ports and in alignment with the filter means.
7. The apparatus of claim 1 wherein the filter means comprises:
 - a duct leading from the draining means to a first filter; and
 - 15 a duct leading from the first filter to a second filter wherein the second filter contains a circulation pump assembly to circulate the cleaning fluid back into the container through the injection nozzle means.
8. An improved method for cleaning articles comprising:
 - 20 placing articles in a container with an abrasive media and cleaning fluid;
 - engaging at least one electric motor for oscillation;
 - pumping the cleaning fluid through a filter system;
 - injecting the cleaning fluid into the container;

oscillating the container; and
recirculating the cleaning fluid through a series of filter back into the container
through and injection means.